

**Project Definition:** The entire collection for a contracted area.

**Work Unit Definition:** A production block of data defined by the National Geospatial Technical Operations Center due to expediency, priority or resource allocation. There can be one or many work units per project.

### Project Information

<b>Lidar Base Specification:</b> Lidar Base Specification 2023 rev. A	<b>Primary Contractor:</b> NV5 Geospatial, Inc
<b>Las Version:</b> 1.4	<b>Contract Mechanism:</b> GPSC
<b>P Method:</b> 7 - Linear-Mode Lidar	
<b>Collection Start Date:</b> 01-08-2023	<b>Collection End Date:</b> 01-07-2024
<b>The National Map Email:</b> tnm_help@usgs.gov	

### Vertical Accuracy Results

The U.S. Geological Survey evaluates absolute vertical accuracy of the lidar and lidar-derived bare earth DEM data at the project level

Lidar Point Cloud	Required NVA RMSEz (cm)	Tested NVA RMSEz (cm)	Required NVA at 95% confidence level (cm)	Tested NVA at 95% confidence level (cm)	Required VVA at 95th percentile (cm)	Tested VVA at 95th percentile (cm)
	10.0	<b>5.48</b>	19.6	<b>10.74</b>	N/A	<b>24.8</b>

Digital Elevation Model	Required NVA RMSEz (cm)	Tested NVA RMSEz (cm)	Required NVA at 95% confidence level (cm)	Tested NVA at 95% confidence level (cm)	Required VVA at 95th percentile (cm)	Tested VVA at 95th percentile (cm)
	10.0	<b>5.74</b>	19.6	<b>11.26</b>	30.0	<b>24.71</b>

Please see the vertical\_accuracy folder within the project metadata for more information.

### Classifications Used

Classification verification is limited to the minimum required by applicable Lidar Base Specification. Classifications beyond the minimum are not verified by USGS.

Classification ID	Classification Type
1	Unclassified
2	Ground
4	Medium Vegetation
5	High Vegetation
6	Building
7	Low Point (Noise)
9	Water
17	Bridge Deck
18	High Noise
20	Ignored Ground
22	Temporal Exclusion

## Sensor(s) Used

Sensor
Riegl VQ-1560ii - Rotating Polygonal Mirror
Riegl 1560ii/ii-s - Rotating Polygonal Mirror

## Work Unit Information

<a href="#">CA_LosAngeles_1_B23</a>	<b>Work Unit ID:</b> 300609	<b>Quality Level:</b> 1
<b>Horizontal EPSG Code:</b> 6340	<b>Vertical EPSG Code:</b> 5703	<b>Geoid Model:</b> GEOID18
<b>DEM Ground Sample Distance:</b> 0.5	<b>Hydro Treatment:</b> hydro-flattened	
<b>Collection Start Date:</b> 2023-01-08	<b>Collection End Date:</b> 2024-01-07	

<a href="#">CA_LosAngeles_2_B23</a>	<b>Work Unit ID:</b> 300610	<b>Quality Level:</b> 1
<b>Horizontal EPSG Code:</b> 6339	<b>Vertical EPSG Code:</b> 5703	<b>Geoid Model:</b> GEOID18
<b>DEM Ground Sample Distance:</b> 0.5	<b>Hydro Treatment:</b> hydro-flattened	
<b>Collection Start Date:</b> 2023-12-02	<b>Collection End Date:</b> 2023-12-07	